

Serial No. 09/987,379

Docket No. MRE-0040

Amendments to the Claims:

1-4. (Canceled)

A 5. (New) A feeder for a surface mounting device, the feeder comprising:
a main frame;
a parts feeding unit, a vinyl separation unit, and a vinyl recovery unit mounted on the main frame; and
a drive system configured to drive each of the parts feeding unit, the vinyl separation unit, and the vinyl recovery unit.

6. (New) The feeder of claim 5, wherein the drive system comprises a forward/backward rotational force generating device.

7. (New) The feeder of claim 6, wherein the forward/backward force generating device comprises a permanent magnet unit positioned adjacent a plurality of armature coils.

8. (New) The feeder of claim 7, wherein the permanent magnet unit comprises a first disc member having a plurality of S and N polar permanent magnet arranged thereon.

Serial No. 09/987,379

Docket No. MRE-0040

9. (New) The feeder of claim 8, wherein the plurality of armature coils are provided on a second disc member, and the second disc member is mounted on a drive shaft adjacent to the first disc member.

10. (New) The feeder of claim 9, further comprising a ball bearing interposed between the first disc member and the drive shaft.

11. (New) The feeder of claim 6, wherein the forward/backward rotational force generating device is provided on the main frame between the parts feeding unit and the vinyl separation unit.

✓ 12. (New) The feeder of claim 5, wherein the parts feeding unit is in rotational communication with the drive system via a first gear train.

A/ 13. (New) The feeder of claim 12, wherein the parts feeding unit comprises a feeding unit driving gear in rotational communication with the drive system via the first gear train, the feeding unit driving gear having driving teeth provided on an outer circumferential surface that are configured to engage with holes provided in a tape to move a tape a predetermined distance upon rotation of the drive system by a corresponding rotational amount.

Serial No. 09/987,379

Docket No. MRE-0040

14. (New) The feeder of claim 13, wherein the first gear train comprises a first feeding unit gear mounted on a shaft of the drive system, an intermediary gear, and a second feeding unit gear mounted on a shaft with the feeding unit drive gear.

✓ 15. (New) The feeder of claim 12, wherein the vinyl separation unit is in rotational communication with the drive system via a second gear train.

M 16. ⁰ (New) The feeder of claim 15, wherein the vinyl separation unit comprises a first vinyl discharge gear rotatable in a first direction, and a second vinyl discharge gear rotatable in a second direction, opposite the first direction, and wherein the first vinyl discharge gear is in rotational communication with the drive system via the second gear train.

17. ⁰ (New) The feeding of claim 16, wherein the second gear train comprises a first separation gear in rotational communication with the first vinyl discharge gear and in rotational communication with a gear mounted on a shaft of the drive system.

18. (New) The feeder of claim 15, wherein the vinyl recovery unit is in rotational communication with the drive system via the second gear train and a belt.

19. (New) The feeding of claim 18, wherein the vinyl recovery unit comprises a recovery reel and a recovery unit gear in rotational communication with the belt.

Serial No. 09/987,379

Docket No. MRE-0040

20. (New) The feeder of claim 5, wherein the parts feeding unit, the vinyl separation unit, and the vinyl recovery unit are driven in synchronization.

21. (New) The feeder of claim 5, further comprising a position sensing unit configured to sense a rotational position of a drive gear of the drive system.

22. (New) A surface mounting device comprising the feeder of claim 5.

23. (New) The surface mounting device of claim 22, wherein the drive system comprises a forward/backward rotational force generating device.

24. (New) The surface mounting device of claim 22, wherein the parts feeding unit, the vinyl separation unit, and the vinyl recovery unit are driven in synchronization.

A